Japan–Measures Affecting the Importation of U.S. Apples

(WT/DS245)

Opening Statement of the United States

at the First Substantive Meeting of the Panel

October 21, 2002

1. Mr. Chairman and members of the Panel, my name is Juan Millan, with the Office of the U.S. Trade Representative. On behalf of the United States of America, I would like to thank you for agreeing to assist in this dispute and for providing the opportunity to present our views today.

2. In this statement, I will not recite all of the facts and legal arguments from the U.S. first written submission. While that document is lengthy, our intent was to provide the Panel with a comprehensive view of the scientific evidence relevant to this dispute. Today, I will first focus on the key issue in this dispute: the absence of any evidence that the exported commodity – mature apple fruit – transmits the disease. Japan has attempted to escape the implications of this fact by constructing a hypothetical scenario in which apples could be a pathway for transmission of the disease. As anticipated in the U.S. first written submission, these efforts fail because such a scenario is merely speculative and is unsupported by scientific evidence. Having discussed this core issue, I will then briefly address several points from Japan's first submission.

3. Mr. Chairman, there is no evidence that mature apple fruit transmit fire blight. The scientific literature is emphatic on this point:

> (1) "It has never been demonstrated that mature fruit are involved in dissemination of Erwinia amylovora and serve as a source of new infections in orchards." (Thomson (2000))
> (2) "We have found no evidence in the scientific literature that apple fruit in commercial shipments, whether contaminated with E. amylovora or not, have provided inoculum for an outbreak of fire blight." (Roberts et al. (1998))
> (3) "The presence of E. amylovora on or in healthy fruit has not been shown to be a source of inoculum in fruit orchards." (Thomson (1992))

Japan has raised the issue of at what point did the evidence become insufficient, but there is no issue of timing here. The quoted statements were published in 2000, 1998, and 1992 – that is, both before and after Japan adopted its fire blight measures – but the evidence has always been the same: there is no scientific evidence that mature apple fruit transmit the disease.

4. This is a compelling finding given the extensive trade in apple fruit worldwide. The United States alone has exported approximately 48 billion apple fruit over the last 35 years. More than 22 billion of those apples were exported to fire blight-free areas that do not impose any restrictive phytosanitary import measures, with no spread of the disease. We note that these are U.S. export statistics only; if all of the apple fruit traded worldwide were added to these U.S. figures, we would merely be heaping billions upon billions. The point remains the same: the evidence indicates that commercially traded apple fruit have not transmitted fire blight.

5. Significantly, Japan does not controvert this evidence – that is, Japan's first submission does not cite any evidence that, in fact, the billions of apples traded over the years have ever resulted in even a single case of fire blight transmission. Instead, Japan's response consists of two parts.

6. First, Japan claims that "[a] brief review of the literature [cited by the United States] reveals questions that cast doubt on the United States' allegation or on its relevance to the present dispute" (Japanese First Written Submission, para. 87). However, the statements quoted earlier do not cast any doubt on the U.S. position because we have merely quoted the scientific evidence for what it says. A review of Japan's review, moreover, reveals that Japan does not, because it cannot, contradict the statements quoted earlier that there is no evidence in the scientific literature that apple fruit have transmitted fire blight.

7. Second, Japan claims that the billions of apple fruit traded only establish that "any incremental risk caused by one additional apple may be very low" and that the only relevant data is the length of time for which U.S. export data have been provided (Japanese First Written Submission, paras. 105-107). Japan is simply wrong in asserting that more data do not give more confidence than less data and wrong in implying that the only data available to demonstrate the lack of fire blight transmission through apple fruit are U.S. export data. The more important point is that Japan's own analysis confirms the fact that trade in apples has not resulted in fire blight transmission.

8. The United States wishes to draw the Panel's attention to the U.S. claim under Article 2.2 of the SPS Agreement. Under this provision, Japan may not maintain this measure "without sufficient scientific evidence." When there is no scientific evidence that mature apples have been implicated in transmission of the disease, there cannot be "sufficient evidence." We also note that, in the *Japan – Varietals* dispute, which involved these same two parties, both the panel and Appellate Body concluded that Article 2.2 requires there to be a "rational or objective" relationship between the measure and the scientific evidence. Again, when there is no scientific evidence that mature apples have been implicated in transmission of the disease, there is no rational or objective relationship between the evidence and measures which restrict importation of apples allegedly to protect against introduction of fire blight. As a result, Japan has acted inconsistently with its obligation under Article 2.2.

9. I now would like to turn to the defense Japan offers in its first submission. Instead of

presenting scientific evidence that mature apples have transmitted the disease or scientific evidence of a genuine risk that they could, Japan has constructed a hypothetical scenario in which apples could be a pathway for transmission of the disease. However, these efforts fail because Japan's scenario is not supported by scientific evidence.

10. Section IV.2 of Japan's first submission is entitled "Likelihood of Introduction of Fire Blight through Apple Fruit: Scientific Evidence," which suggests that here is the evidence that is sufficient to maintain the measures. What we find is that Japan's "evidence" is limited to three types of allegations: detection of endophytic bacteria in apple fruit, detection of epiphytic bacteria on apple fruit, and "apple fruit as a pathway." Japan's presentation of the scientific evidence on the first point is badly flawed and on the second point is wholly inadequate. Worse, Japan's "evidence" on "apple fruit as a pathway" is not even evidence but is nothing more than conjecture.

11. I will start with the Japan's "evidence" on apple fruit as a pathway. In order for imported apples to serve as a pathway, apples must be a means that allows entry or spread of a pest. The IPPC pest risk guidelines explain the steps that comprise an evaluation of the probability of entry; applied to apples, the guidelines suggest that apples could serve as a pathway if: (1) fire blight bacteria are associated with exported apples; (2) bacteria survive commercial handling, storage, and transport; (3) bacteria survive consumption and/or discard; (4) bacteria are vectored to a susceptible plant host; and (5) the host is at a receptive stage and infection occurs. Indeed, Japan implicitly endorses this analysis in Exhibit JPN-14, entitled "Probability of fire blight dissemination via mature, apparently healthy fruits." However, Japan does not present scientific evidence relating to each of these steps.

12. What evidence does Japan present? In an effort to validate its presentation of evidence relating to fire blight transmission through means other than apple fruit, Japan writes: "No ecological study is available on possible dissemination of fire blight via apple fruit. As a matter of common sense, it can easily be envisaged that surviving Erwinia amylovora, either inside or outside apple fruit, could be transmitted to nearby host plants . . . ." Later in the same section, Japan attempts to discredit scientific evidence that there is no vector to move fire blight bacteria from discarded apple fruit to a receptive host by suggesting that the research was too direct: "One can easily envisage complex, intertwined potential pathways from imported fruit to an orchard, which have not been tested." (Japanese First Written Submission, paras. 70, 84.) Mr. Chairman and members of the Panel, one can always "easily envisage" – "as a matter of common sense" or not – "complex" scenarios relating to "potential pathways." This does not mean that speculation and hypothetical scenarios constitute scientific evidence that apple fruit are a pathway for transmission of the disease.

13. Japan has not even attempted to present scientific evidence relating to each step making up a proper analysis of the probability of entry. Such an analysis would have made plain the absence or meager extent of scientific evidence for various such steps. Even if bacteria were present on the surface of fruit at harvest (an extremely rare event, to which we will return in a

moment), Japan has presented no evidence of the likelihood that such bacteria would survive commercial handling, storage, and transport; Japan has presented no evidence that such bacteria would survive consumption and/or discard of the fruit; and Japan has presented no evidence that any surviving bacteria would be vectored to a susceptible plant host. Where, as in the latter step, there is no scientific evidence that a step in the pathway would be completed, Japan cannot simply "envisage" a likelihood – that is mere speculation, and such hypothetical "risks" may not serve as the basis for an SPS measure. Thus, there is no scientific evidence that apples serve as a pathway; this alone establishes that there is not sufficient scientific evidence to maintain the fire blight measures.

14. To return to the first two categories of "evidence" that Japan presents on the likelihood of introduction of fire blight through apple fruit, Japan's presentation of the evidence relating to endophytic (internal) bacteria and epiphytic (external) bacteria is not accurate. Especially with reference to endophytic bacteria, Japan has misreported the scientific evidence. Thus, we wish to draw to the Panel's attention the flaws in Japan's analysis.

15. Japan's "evidence" relating to endophytic bacteria in mature fruit rests entirely on three experiments reported in the 1990 paper published by van der Zwet et al. that has already attracted some attention in this dispute. Contrary to Japan's repeated assertions, none of these three experiments provides evidence that endophytic bacteria may be found in mature fruit. These experiments have already been explained by the United States in its first submission (paras. 33 & 35 and footnotes 67, 68 & 80), but, unfortunately, Japan has chosen to ignore that presentation, instead misrepresenting the experimental results as relating to mature fruit and demonstrating recovery of endophytic presence from mature fruit. The true situation is as follows:

16. First, as suggested by the harvest dates reported in the paper and as clarified by Dr. van der Zwet and Professor Thomson, endophytic bacteria were not recovered from any of the mature or nearly mature fruit in the geographic survey experiment.

17. Second, as suggested by the harvest dates reported in the paper and as clarified by Dr. van der Zwet, no mature fruit were involved in the distance experiment in which endophytic bacteria were recovered.

18. Third, in the storage experiment (the implication of which, Japan writes, "is profound" because internal bacteria can allegedly "survive inside 'mature' and 'symptomless' apple fruit and can cause fire blight symptoms later on"), Dr. van der Zwet pointedly reported that mature fruit developed "internal fire blight symptoms [that] were difficult to distinguish from other fruit rots," and he speculated that these symptoms were "presumably from endophytic bacteria." As this statement makes plain, Dr. van der Zwet presumed internal bacterial presence, but he did not test for it.

19. Thus, this experiment, like the others, provides no scientific evidence that endophytic bacteria may be found in mature fruit. Despite the clarifications provided by Dr. van der Zwet

and Professor Thomson, Japan invites the Panel to rely on subsequent characterizations of the 1990 paper in the literature that are known to be inaccurate. Thus, there is no evidence in the scientific literature that mature fruit will contain endophytic fire blight bacteria.

20. Because of the weight Japan has placed on this 1990 paper, I would like to make three further remarks. First, this paper presents no evidence on, and is not an evaluation of the likelihood of, fire blight transmission. The numerous experiments reported in the paper are studies on whether bacteria are associated internally or externally with apples, nothing more. Thus, this paper, by itself, does not provide scientific evidence that apples are a pathway for fire blight.

21. Second, the United States was surprised to see Japan cite to this 1990 paper as evidence that mature apples could serve as a pathway for fire blight transmission. Japan quotes the authors' conjecture: "The positive discovery of endophytic E. amylovora from 14 apples of two cultivars in Utah requires caution and may partially explain the observation of fruit blight symptoms on pear shipments to Hawaii and England." From this Japan concludes: "Clearly, the authors perceived the risk of long-distance dissemination via fruit from these two pieces of evidence" (Japanese First Written Submission, para. 75). (I should point out that this endophytic bacteria was recovered from immature fruit.) However, Japan ignores the subsequent conclusions of the authors to the contrary – conclusions based not on speculation, but on reviews of the scientific literature.

22. Professor Thomson wrote in 1992: "The presence of E. amylovora on or in healthy fruit has not been shown to be a source of inoculum in fruit orchards. . . . . It seems very remote that contaminated fruit could be responsible for establishing new outbreaks." Dr. van der Zwet in 1998 co-authored a paper which stated: "We have found no evidence in the scientific literature that apple fruit in commercial shipments, whether contaminated with E. amylovora or not, have provided inoculum for an outbreak of fire blight." And Professor Thomson in 2000 wrote again: "[I]t has never been demonstrated that mature fruit are involved in dissemination of Erwinia amylovora and serve as a source of new infection in orchards." (The United States would like to emphasize to the Panel that all of these are passages from published scientific articles.) Thus, Japan apparently rests much of its case on a conjectural statement by two authors, both of whom have published subsequent work explicitly drawing the opposite conclusion.

23. Third, the United States notes that, despite lending much weight to the 1990 paper, Japan has not proposed either Dr. van der Zwet or Professor Thomson to serve as a scientific expert to advise the Panel. Fortunately, the United States has proposed that Professor Thomson be considered; thus, Japan has the opportunity to suggest in its comments on the proposed experts that the Panel seek expert advice from one of the authors of this important (for Japan) paper.

24. Turning to the evidence of epiphytic bacteria on mature apple fruit, Japan's presentation is strikingly laconic. Japan states: "Equally predictably, epiphytic bacteria were recovered from apple fruit in a few studies." Japan later writes: "The United States' conclusion that the external

presence of bacteria is 'extremely rare' is not established at all. Scholberg et al. (1988), for example, clearly stated that 'E. amylovora may be present on symptomless fruit at harvest under certain conditions'" (Japanese First Written Submission, paras. 64-66). The Japanese statement begs the question: what are those "certain conditions"? In the Scholberg article itself (as explained in the U.S. first submission), those conditions were pear trees interplanted with apple trees, a late-season hail storm, and epidemic fire blight that resulted in a "severely damaged" orchard from which the fruit were harvested. Is Japan claiming that these "certain conditions" are common? And if so, how common are they? The United States has explained that, indeed, only "a few" studies have detected epiphytic bacteria on mature fruit at harvest, only in the most extreme fire blight conditions, and only from some of the fruit harvested under those conditions. Numerous studies have not detected epiphytic bacteria from mature fruit harvested from blighted trees and orchards. Japan's failure to evaluate and acknowledge this data speaks both to whether it has assessed the likelihood – i.e., the probability – of entry, establishment, or spread of the disease within the meaning of Article 5.1 of the SPS Agreement as well as to the plausibility of the pathway scenario that it constructs.

25. Where does this leave us? As is evident from Japan's first written submission, there remains no evidence that mature apple fruit have ever transmitted and are a pathway for transmission of fire blight. The scientific evidence demonstrates that endophytic bacteria have never been recovered from mature fruit. The scientific evidence demonstrates that epiphytic bacteria are rarely recovered from the outside of mature fruit and then only in the most extreme circumstances. Japan has not even identified the steps necessary for apples to serve as a pathway for introduction of fire blight to Japan. Nonetheless, the scientific evidence demonstrates that several steps in the hypothetical pathway will either not be or are very unlikely to be completed. Thus, no fire blight measure is justified on imported mature fruit because no genuine risk arises to Japanese plant life or health from apple imports.

26. I would now like to address several other points from Japan's submission. First, we note Japan's burden of proof argument. In short, Japan claims that Article 4 of the SPS Agreement, read in conjunction with Article 2.2, suggests that the United States must come forward with evidence that objectively demonstrates to Japan the equivalence of a measure proposed by the United States. Otherwise, Japan claims, an exporting Member would be able to prevail under Article 2.2 merely by contradicting the importing country's evidence. Mr. Chairman, this argument is flawed.

27. The United States has not simply brought forward evidence that contradicts the evidence to which Japan points (although the evidence, properly read, does significantly contradict Japan's reading of it). Rather, we have brought forward scientific evidence that there is no documented instance of fire blight transmission through mature fruit. None. Moreover, we have pointed out the steps necessary to demonstrate that mature apple fruit could be a pathway for transmission and explained that Japan has pointed to no evidence supporting its hypothetical scenario with respect to several of these steps. This is more than sufficient to meet our burden of proof under Article 2.2 that Japan is not maintaining its measures with sufficient scientific evidence.

28. Japan also mischaracterizes the relationship between Article 2.2 and Article 4. Article 4, which obligates a Member to accept a measure as equivalent to its own measure if the exporting Member objectively demonstrates that the measure achieves the importing Member's appropriate level of protection, presupposes that the measure imposed by the importing Member is maintained with sufficient scientific evidence. Article 4 cannot be read in such a way that an importing Member could escape this basic obligation under Article 2.2. Thus, while Article 4 could provide a particular avenue for the United States to obtain recognition of its measure as equivalent to a Japanese measure complying with Article 2.2, Japan must have sufficient scientific evidence to maintain its measure under Article 2.2 in the first instance.

29. We note that Japan has directed much of its focus to the validity of the 2000 joint Japanese-U.S. study, even reordering the U.S. presentation of the scientific evidence to lead with this study (Japanese First Written Submission, para. 88). I want to put this study into perspective. Even if the 2000 study had not been performed at all, this would not relieve Japan of its obligation under Article 2.2 of the SPS Agreement not to maintain the measure without sufficient scientific evidence. There is simply no evidence that mature apple fruit transmits fire blight. To the contrary, there is significant body of evidence, of which the 2000 joint study is only one part, that mature fruit does not. We would be happy to explain the validity of the 2000 joint study as conducted. However, any alleged inadequacies in the study are ultimately irrelevant to the question of whether Japan can point to any evidence of a risk of transmission by apple fruit.

30. We also feel compelled to address Japan's misuse of the 1998 paper published by Roberts et al. We have quoted the conclusion from this paper several times in this statement and in our first submission: "We have found no evidence in the scientific literature that apple fruit in commercial shipments, whether contaminated with E. amylovora or not, have provided inoculum for an outbreak of fire blight." Given the absence of any scientific evidence that mature apple fruit have transmitted the disease, the paper then attempted to provide a numerical estimation of the likelihood of transmission. The paper described a hypothetical pathway and estimated the overall likelihood of transmission from the probability that each sequential step in the hypothetical pathway would be completed.

31. Japan thus misrepresents the aim and conclusion of the paper when it asserts that, "by assigning positive values to P(1) through P(5)," that is, each step in the hypothetical pathway, "the authors implicitly acknowledged the risk. These risks are neither theoretical nor hypothetical; they are partially based on experiments. The authors did recognize that the likelihood is something that should be given a positive value" (Japanese First Written Submission, para. 95). Japan neglects to explain that the whole point of this quantitative model was to use non-zero estimates to demonstrate, even for the hypothetical pathway, that the risk of introduction of fire blight through apples is "extremely low." For example, had the authors used the absence of any scientific evidence that a vector exists to transfer hypothetical bacteria from a discarded fruit to a susceptible host, the value for that step in the pathway would have been zero, and the model would have predicted that apples could never transmit fire blight. Of course, as

the panel and Appellate Body found in *EC – Hormones* and as we will often repeat, "science can never provide absolute certainty" that an event may never occur. Thus, the 1998 paper used non-zero estimates, even where there is no evidence that a step in the hypothetical pathway can be completed; even using these hypothetical values, the theoretical probability is extraordinarily low.

32. Japan also criticizes the 1998 paper for assigning values that are too high to particular steps in the pathway and, therefore, for estimating that the number of years until outbreak would be 38,462 years. However, Japan is well aware that the 1998 Roberts paper significantly overestimates the hypothetical risk of transmission. First, Japan knows that this is an overestimation because the positive data used in the 1998 paper erroneously includes positive results from the 1990 van der Zwet et al. paper. Correcting for this error and taking into account additional published data relating to other steps, the estimated years until outbreak would not be 38,462 years but rather 208,667 years. Second, Japan knows that the 1998 paper overestimated the hypothetical risk because, as Japan itself pointed out to us in 1999, the model does not include the effect of chlorine on epiphytic bacteria. If a chlorine treatment is included in the model, the estimated years until outbreak rises to 546 billion years. We are happy to provide the revised model that supports these estimates with our rebuttal submission. Here, we would simply note that the fact that these corrected numbers are so large – from 208,667 to 546 billion years – merely points out that the model is an effort to quantify what has never been shown to occur: transmission of fire blight by mature fruit.

33. Japan cites a paper published by Japanese scientists that purports to revise the pest risk model using different statistical techniques that produces an estimate of 334 years until outbreak. Because this paper adopts the data as presented in the 1998 Roberts paper, for the same reasons just stated, it too significantly overestimates the hypothetical risk of transmission. We also note that this paper does not, from a statistical perspective, correctly analyze the published data. We are happy to present a more detailed critique of the Japanese statistical paper with our rebuttal submission. We note, however, that the statistical intricacies in the Japanese paper or our critique are not in any way necessary to the Panel's analysis of whether Japan has acted consistently with its obligation not to maintain its measures without sufficient scientific evidence.

34. Finally, with respect to U.S. claims under Article XI of GATT 1994 and Article 4.2 of the Agreement on Agriculture, we note that, in its first written submission, Japan has stated that it prohibits the importation of apples from the United States pursuant to its Plant Protection Law and its Plant Protection Law Enforcement Regulations, unless produced, harvested, and imported according to restrictions set out by Notification No. 354 of the Ministry of Agriculture, Forestry, and Fisheries and related Detailed Rules. GATT 1994 Article XI prohibits Members from using "prohibitions or restrictions other than duties, taxes, or charges"; Article 4.2 of the Agreement on Agriculture states that "Members shall not maintain, resort to, or revert to any measures of the kind which have been required to be converted into ordinary customs duties," and the footnote to this provision clarifies that such "measures include quantitative import restrictions." Thus, Japan

has acted inconsistently with its obligations under GATT 1994 Article XI and Article 4.2 of the Agreement on Agriculture.

35. Mr. Chairman and members of the Panel, we have not addressed every argument of the United States and Japan in this statement. Instead, we have sought to focus attention on the key issue in this dispute: the absence of any evidence that the exported commodity – mature apple fruit – transmits the disease. We look forward to addressing the arguments further in the U.S. rebuttal submission. We're also happy to answer any questions you may have today or in writing after this meeting. Thank you for your attention this morning.